

I CLAIM:

1. A vertical mixer comprising a mixing chamber containing a substantially vertical rotatable auger having a generally helical flight that is tapered to converge from bottom to top, with power means to rotate said auger about a longitudinal center axis, said mixing chamber having a floor and a side wall, said side wall having an opening therein that includes part of said floor, said opening being sized and located to be closed by a door, said door having a closed position and an open position.
2. A vertical mixer as claimed in Claim 1 wherein said door has a segment thereon that forms part of said floor when said door is in said closed position.
3. A vertical mixer as claimed in Claim 2 wherein said auger is sized and shaped to extend partially out of said opening during part of each rotation of said auger when said door is in said open position.
4. A vertical mixer as claimed in any one of Claims 2 or 3 wherein said segment has an upper surface that is substantially flush with an upper surface of said floor when said door is in a closed position.
5. A vertical mixer as claimed in any one of Claims 1, 2 or 3 wherein there is at least one hinge extending between said door and said side wall, said door pivoting on said at least one hinge when moving between said open position and said closed position.
6. A vertical mixer as claimed in any one of Claims 1, 2 or 3 wherein there is a hydraulic cylinder connected to open and close said door.
7. A vertical mixer as claimed in any one of Claims 1, 2 or 3 wherein there are two hinges extending between said door and said side wall, said hinges being located at a top of said door.
8. A vertical mixer as claimed in any one of Claims 1, 2 or 3 wherein said door has two hinges.
9. A vertical mixer as claimed in any one of Claims 2 or 3 wherein said segment is located at a bottom of said door.

10. A vertical mixer as claimed in any one of Claims 1, 2 or 3 wherein said flight has a periphery with a plurality of substantially straight sections.
11. A vertical mixer as claimed in any one of Claims 1, 2 or 3 wherein said side wall has at least one window therein extending at least partially between a top and bottom of said side wall to allow visual access to an interior of said chamber from outside said mixer.